

### 39. Respiratory Protection

- 39.01. The purpose of this program is to assure that each respirator user is adequately protected from air contaminants of concern under routine and emergency situations; that respirators are kept clean, sanitary, and maintained in good operating condition; and that respirators are used by employees who have been properly fitted and trained.
- 39.02. This procedure applies to all Physical Plant employees who are exposed to a hazardous level of an airborne contaminant, or required by the employer to wear respirators, or permitted to wear respirators.
- 39.03. Definitions:
- 39.03.01. Filtering face piece or dust mask - A negative pressure particulate respirator with a filter as an integral part of the face piece or with the entire face piece composed of the filtering medium. A dust mask.
  - 39.03.02. Respirator – An air filtering device worn over the mouth and nose to protect the respiratory tract of the user from hazardous gas, vapor or particulate materials in the ambient air.
  - 39.03.03. Tight fitting face piece – A negative pressure respirator with a tight fitting face piece made of elastomers such as rubber or silicone. Depending on type of filter or cartridge used, may be used for vapor or particulates.
  - 39.03.04. Voluntary use - The use of a respirator in atmospheres which are not hazardous.
- 39.04. Department Director
- 39.04.01. The director of the department is solely responsible for this program and has full authority to make necessary decisions to ensure its success. The director may assign responsibility for implementation and day-to-day operation of the respirator program to a designated Respirator Program Administrator (RPA).
- 39.05. Supervisor
- 39.05.01. Supervisors are responsible to ensure that employees follow procedures for medical evaluations, fit tests, and training requirements; that they use and maintain the respirator properly; and that they report changes in exposure conditions to the RPA.
- 39.06. Employees
- 39.06.01. Employees shall obtain required medical evaluations, fit tests, and training, and wear and maintain the assigned respirator (as recorded in the “List of Employees Authorized for Respirator Use”) when working in an area requiring respirator use. Employees shall report changes in exposure conditions to the Department RPA.
- 39.07. Physical Plant Safety
- 39.07.01. The Physical Plant Safety will work with the department to conduct hazard assessments, set up the initial program, provide consultation as needed, periodically review effectiveness of the department program, and serve as the central records custodian for

copies of records of medical determinations, fit tests, and the list of authorized users in each department.

### 39.08. Selections Hazard Survey

39.08.01. Departments shall survey their work areas for respiratory hazards with the help of Physical Plant Safety or other experts on respiratory hazards

### 39.09. Selection Criteria

39.09.01. Where hazard evaluation data indicates the need for respiratory protection, the department shall provide the employee with an appropriate respirator model with acceptable fit at no cost to the employee.

39.09.02. Respirator selection shall be based on hazards the employee will be exposed to, and any other factors that may affect performance and reliability. All models of respirators used for employee health protection shall be certified by the National Institute of Occupational Safety and Health (NIOSH).

39.09.03. Selection and use of respirators for department employees includes consideration of the following:

39.09.04. Estimate of exposure hazard

39.09.05. Chemical and physical form of contaminant

39.09.06. Characteristics of the hazardous operations or processes

39.09.07. Location of hazardous areas

39.09.08. Period of time which respiratory protection may be needed

39.09.09. Activity of employees in the hazardous areas

39.09.10. Physical characteristics, capabilities, and limitations of various types of respirators

39.09.11. Respirator protection factors and respirator fit.

### 39.10. Limitations of Use

39.10.01. Employees are only allowed to wear the specific make, model, and size of air purifying respirators for which they have been properly fitted, and when applicable, those that meet the appropriate change-out schedule for cartridges and filters

39.10.02. Employees are prohibited from performing work in other departments where respiratory protection is required unless Physical Plant Safety or another authority on respiratory hazards has first completed a hazard evaluation for the work

### 39.11. Air Purifying Respirators Shall not be used Under the Following Conditions:

39.11.01. Immediately Dangerous to Life and Health (IDLH) atmospheres.

39.11.02. Oxygen deficient atmospheres (less than 19.5% oxygen).

39.11.03. Situations where contaminants lack sufficient warning properties.

- 39.11.04. Atmospheres containing unknown contaminants or concentrations.
- 39.11.05. Atmospheres containing contaminant concentrations exceeding maximum use of Respirators.
- 39.12. Training
  - 39.12.01. Training is required prior to use in the workplace, annually, and more frequently if necessary to ensure safe respirator use. The RPA shall maintain records of employees who participate in respiratory protection training.
  - 39.12.02. General training for air purifying respirators will be provided by Physical Plant Safety. Training appointments can be made by calling Physical Plant Safety. General training for air purifying respirators can also be provided by the department RPA. Site-specific training will be provided by personnel qualified to teach the information.
- 39.13. Medical Evaluations and Fit Testing
  - 39.13.01. Prior to initial use, medical authorization to wear a respirator shall be required of every employee that will be required to use a respirator. Medical evaluations will be conducted at University Health Services (UHS).
  - 39.13.02. For non-required use respirators, an initial medical evaluation is required only if the device has a tight-fitting elastomeric face piece.
  - 39.13.03. All department employees required to use a tight-fitting face piece respirator will be fit tested using the same make, model, style and size respirator they will use.
  - 39.13.04. Fit testing will be performed before initial use of a respirator, at least annually thereafter, and whenever conditions (such as employee's physical condition) change that could affect respirator fit.
  - 39.13.05. Fit testing requires the respirator user to handle the respirator, have it fitted properly, test the face piece-to-face seal, and to wear it in normal air for a familiarity period.
- 39.14. Inspection
  - 39.14.01. Respirators will be inspected before each use and after cleaning, checking respirator function, tightness of connections, condition of parts (including face piece, head straps, valves, filtering elements), and for any deterioration or loss of pliability of elastomeric (e.g., rubber or silicone) parts.
- 39.15. Cleaning and Disinfecting
  - 39.15.01. Respirators will be regularly cleaned, disinfected, inspected, repaired, stored, and when necessary, discarded.
  - 39.15.02. Respirators will be properly cleaned and sanitized.
  - 39.15.03. Respirators used routinely will be inspected during cleaning and worn or deteriorated parts will be replaced.
- 39.16. Respirator Repairs

- 39.16.01. Respirators failing inspection or found defective shall be removed from service.
- 39.16.02. Respirator repairs or adjustments are only done by properly trained personnel using parts designed for the respirator according to manufacturer's recommendations.
- 39.16.03. Discard respirators permanently removed from service so they do not return to service.

### 39.17. Storage

- 39.17.01. All respirators shall be stored in a clean and sanitary location to protect them from damage, contamination, dust, sunlight, extreme temperatures, excessive moisture, damaging chemicals, and to prevent face piece and exhalation valve deformation.

### 39.18. Volunteer Respirator Use

- 39.18.01. Where respirator use is not required for protection of employee health, the department may choose to allow voluntary use of respirators for employees who wish to wear them for comfort
- 39.18.02. Department management shall approve the respirator selected.
- 39.18.03. Any respirator may be used as a voluntary use respirator provided it does not create a health or safety risk to the user.
- 39.18.04. Employees may only use the voluntary use respirators that they are authorized for.
- 39.18.05. Employees are prohibited from using a voluntary use respirator in other departments.
- 39.18.06. Fit testing is not required for voluntary use respirators because respirator use is not necessary for protection of health.
- 39.18.07. Voluntary respirators may only be used as authorized by the department.
- 39.18.08. In locations where respirator use is required, voluntary use respirators are prohibited.
- 39.18.09. In locations where any overexposure could occur, voluntary use respirators are prohibited.
- 39.18.10. Provide OSHA-Required Information to All Voluntary Respirator Users

### 39.19. Program Evaluation

- 39.19.01. The RPA shall maintain appropriate surveillance of work area conditions and employee exposure.
- 39.19.02. The RPA shall monitor the effectiveness of the program.
- 39.19.03. Issues identified during surveillance shall be promptly corrected by the RPA.
- 39.19.04. A guide is found in the Appendices for performing program evaluations.
- 39.19.05. If a change is noted that has potential to increase employee exposure, the RPA will contact Physical Plant Safety to determine if protection modifications are necessary.
- 39.19.06. Record Keeping

- 39.19.07. The RPA will maintain the following records:
  - 39.19.08. Respirator user initial and annual medical clearance records
  - 39.19.09. Records of annual fit tests
  - 39.19.10. Evaluations of program effectiveness
  - 39.19.11. A written copy of the current department respirator program
- 39.20. Only authorized employees may use a respirator. Employees shall complete all requirements of the required use respirator program before using a respirator.
- 39.21. The authorization table lists employee names, their job classification, type of respirator, and the location or operation where respirator use is required.
- 39.22. The program shall be updated as necessary to reflect changes in workplace conditions and respirator use. The Department RPA shall maintain awareness of respirator use in the workplace to ensure that continuous successful implementation of all program elements is being achieved.
- 39.23. Frequency of evaluation is based on the complexity and factors such as the hazard, types of respirator in use, variability of processes and operations, numbers of users, and worker experience.